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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/786,492	06/20/2002	Nicole Baker	C70366	8733
20462	7590	03/24/2006	EXAMINER	
SMITHKLINE BEECHAM CORPORATION CORPORATE INTELLECTUAL PROPERTY-US, UW2220 P. O. BOX 1539 KING OF PRUSSIA, PA 19406-0939			KRASS, FREDERICK F	
			ART UNIT	PAPER NUMBER
			1614	

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/786,492	Applicant(s) BAKER ET AL.	
	Examiner Frederick F. Krass	Art Unit 1614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 17-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 17-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Previous Rejections

Unless specifically maintained infra, all previous rejections are withdrawn.

Anticipation Rejection (Previous)

Claims 13-23 were rejected under 35 USC 102(b) as being anticipated by Heckert (USP 4,722,847).

This rejection is maintained, but is now applicable to claim 13 only.

Applicant argues that the prior art does not teach reducing tooth erosion in general; the addition of viscosity modifying polymers in particular to reduce tooth erosion; nor control of calcium to acid mole ratio in particular for the same purpose. (Remarks, p.7, ¶¶ 4 and 5). The examiner maintains his position (one Applicant concludes is “legally incorrect”, with no supporting reasoning, at the penultimate paragraph of p. 6 of the Remarks) that claim 13 merely recites reducing tooth erosion in a non-limiting preamble, and thus carries no weight in determining patentability. The examiner also disagrees with the assertions made by Applicant at the fifth paragraph of p. 7 of the Remarks; “if” does not require the adjustments or alterations alluded to therein. Where the prior art juices already have a pH of 4.5 or below, no adjusting or alteration is “necessary” or “desired” to obtain that pH.

Obviousness Rejections (Previous)

1) Claims 1-14 and 16-23 were rejected under 35 U.S.C. 103(a) as being unpatentable over WO 97/30601 in view of Heckert (USP 4,722,847).

2) Claims 1-14 and 16-23 were rejected under 35 U.S.C. 103(a) as being obvious over Parker (USP 6,719,963) in view of Heckert (USP 4,722,847).

3) Claims 1-14 and 16-23 were rejected under 35 U.S.C. 103(a) as being obvious over Parker (USP 6,319,490) in view of Heckert (USP 4,722,847).

4) Claims 1-14 and 16-23 were provisionally rejected under 35 U.S.C. 103(a) as being obvious over copending Application No. 10/733,992, taken in view of Heckert (USP 4,722,847).

These rejections are maintained, but are now applicable to claims 1-13 only.

Applicant argues that there is no teaching, nor suggestion in the primary references that would lead one to think there was a problem with stabilization of the calcium. Accordingly, there would be no reason to add the premix stabilizers of the secondary reference, other than through the use of impermissible hindsight reconstruction on the examiner's part. (Remarks, pp. 8 and 9).

The examiner does not agree. The teachings of the secondary reference are applicable when relatively high amounts of calcium are present. See, *e.g.*, col. 2, lines 10 et seq. Thus, when using higher levels in formulating the primary reference compositions, one skilled in the art would in fact expect solubility problems to be an issue. That the primary reference does not explicitly discuss stabilization with premix stabilizers at high calcium levels does not necessarily mean that same would not be a problem. (It is not possible, and would not be desirable, that a patent document disclose every possible problem that might arise, particularly where those problems are well-known to the skilled artisan).

Obviousness Rejection (New)

Claims 17-24 are rejected under 35 USC 103(a) as being unpatentable over Heckert (USP 4,722,847) in view of Gray (USP 2,943,941).

The primary reference discloses fruit juice beverages to which have been added i) calcium, ii) an acidulant (col. 3, lines 45-57) and iii) a premix stabilizer, including polysaccharides such as pectin, algin, starches and xanthan (col. 9, first paragraph). The premix stabilizer is added after calcium and the acidulant (col. 9, lines 15-17). The primary reference thus differs from the instant claims insofar as it is silent regarding the use of polyvinylpyrrolidone.¹ It does, however, teach that useful premix stabilizers are

¹ As stated at col. 9, lines 32 and 33 of USP 5,792,502, a "pH range [of about 2.5 to about 4.5] is typical for noncarbonated beverages." Accordingly, one skilled in the art would reasonably expect the fruit juices of Heckert, which are typical noncarbonated beverages, to have pH's in the range of about 2.5 to about 4.5. (Note that USP 5,792,502 is cited herein only to illustrate that the inherent pH of fruit juices is well-

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not limited and may include materials "which can complex with calcium and/or act as crystallization inhibitors " at col. 9, lines 1-3.

Polyvinylpyrrolidone is a known crystallization inhibitor for beverages (beer specifically), as illustrated by the secondary reference. PVP is taught to be particularly effective where high temperature processing is involved. See col. 1, lines 25-27 and lines 63-4, for instance. The secondary reference differs from the instant claims insofar as it is silent regarding a pH of less than or equal to 5.

It would have been obvious to have used PVP as a premix stabilizer in the primary reference, motivated by the desire to take advantage of its art-recognized crystallization inhibiting properties (particularly where high processing temperatures were involved) as taught by the secondary reference.

Obviousness-Type Double Patenting Rejection (Previous)

1) Claims 1-14 and 16-23 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 6,719,963 in view of Heckert (USP 4,722,847).

2) Claims 1-14 and 16-23 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-36 of U.S. Patent No. 6,319,490 in view of Heckert (USP 4,722,847).

known; the reference is not being used in combination with Heckert in the context of establishing

3) Claims 1-14 and 16-23 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-22 of copending Application No. 10/733,992 in view of Heckert (USP 4,722,847).

These rejections are maintained, using substantially the same reasoning provided in maintaining rejections “1)” through “4)” in the “Obviousness Rejection (Previous)” section supra.

Action is Final, Necessitated by Amendment

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frederick F. Krass whose telephone number is 571-272-0580. The examiner's schedule is 9:30AM – 6:00PM, Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Low can be reached at 571-272-0951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frederick Krass
Primary Examiner
Art Unit 1614

